



Product Evaluation

RC541 | 0617

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: RC-541

Effective Date: June 1, 2017

Re-evaluation Date: April 2021

Product Name: Engineered Slate and Engineered Cedar Shake Polymer Composite Synthetic Roofing Tiles Installed over a Wood Structural Panel Roof Deck

Manufacturer: Ply Gem Industries
5020 Weston Parkway
Cary, NC 27513
919-237-9092

General Description:

Engineered Cedar Shakes:

The Engineered Cedar Shakes roofing tiles are manufactured from inorganic mineral filled polymer resins. The shakes are solid throughout and are tapered from 5/16" at the bottom to 3/16" at the top. The finished product is 18" long and available in 5", 7", and 9" widths. The shakes are suitable for installation with an exposure from 6" to 8".

Engineered Slate:

The Engineered Slate roofing tiles are manufactured from inorganic mineral filled polymer resins. The slate are solid throughout and are tapered from 5/16" at the bottom to 3/16" at the top. The finished product is 18" long by 11-3/4" wide. The slate are suitable for installation with an exposure from 6" to 8".

Limitations:

Roof Slope: Products must not be installed on roof slopes less than 4:12.

Installation:**Engineered Cedar Shake**

Design Pressure Rating: -187.5 psf

Roof Deck: A minimum of 15/32" thick plywood.

Underlayment: Install 36" of ice and water shield at the perimeters. A minimum of one layer of ASTM D 226, Type II, 30 lb. asphalt felt with minimum 8" side laps and 4" head laps. Secure the underlayment to the roof deck with corrosion resistant fasteners as required by the manufacturer. Locate the fasteners in the overlap a maximum of 36" on center as required by the IRC and the IBC.

Fasteners: Secure the shakes to the roof deck with minimum 4d x 1-1/2" long stainless (Type 304 or 316) steel ring shank nails through the labeled nailing locations on the shake. Four fasteners per shake are required. Fasteners can be applied by hammer or by pneumatic nail gun. Ensure that the head of the nail is flush with the roof covering. Fasteners must be long enough to penetrate completely through the roof deck.

Engineered Slate

Design Pressure Rating: -187.5 psf

Roof Deck: A minimum of 15/32" thick plywood.

Underlayment: Install 36" of ice and water shield at the perimeters. A minimum of one layer of ASTM D 226, Type II, 30 lb. asphalt felt with minimum 8" side laps and 4" head laps. Secure the underlayment to the roof deck with corrosion resistant fasteners as required by the manufacturer. Locate the fasteners in the overlap a maximum of 36" on center as required by the IRC and the IBC.

Fasteners: Secure the slate to the roof deck with minimum 4d x 1-1/2" long stainless (Type 304 or 316) steel ring shank nails through the labeled nailing locations on the slate. Four fasteners per slate are required. Fasteners can be applied by hammer or by pneumatic nail gun. Ensure that the head of the nail is flush with the roof covering. Fasteners must be long enough to penetrate completely through the roof deck.

Note: Keep the manufacturer's installation instructions on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.